

Chief, Intelligence Information Staff, ORR
THRU : Chief, Industrial Division, ORR
Chief, Guided Missiles Branch, D/I

13 January 1958

Request for Additional Information

Ref : Report No. [REDACTED] 25X1A2g

SECRET NO FORN/CONTINUED CONTROL

25X1X6

25X1X7

1. [REDACTED] a [REDACTED] employed from 1944 to January 1957 at Aircraft Engine Plant No. 45 in Moscow appears to possess information which indicates that the plant produced some article(s) for guided missiles. When complete, the article(s) were reportedly shipped to another plant, possibly to Plant No. 456 in Khimki.

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2. The following information is requested from source:

a. What Soviet technical aviation school did source attend in Moscow from 1945 to 1948? Where is it located?

b. Does source know of any other [REDACTED] who has also attended the above aviation school or was employed at Plant No. 45 in Moscow; at Plant No. 456 in Khimki? 25X1X7

c. Upon what authority does source claim that Shop No. 23 at Factory No. 45 participated in the production of parts for use in guided missiles? Did he actually see the parts--work on them?

d. Precisely what missile parts were produced at Plant No. 45? Describe and make drawings of them.

e. How much effort (man-hours) per shift was devoted to the production of the missile parts in Shop No. 23? When did production first start? Was the effort constant or was greater effort progressively allocated to the production of missile parts in lieu of conventional aircraft parts?

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f. How many man-hours were required to produce an individual missile part? What machine operations were required? What type machine tools were used in the operation?

g. In previous interview, source stated that "fabricated materials came from various plants in the Moscow area and from other parts of the USSR." Source is requested to elaborate on this statement and to be as specific as possible on what parts came from where, in what quantity, and what was their intended use in engine or missile manufacture.

h. Were missile parts inspected in Shop No. 23? Describe the inspection procedure. What percentage of parts were rejected for imperfections? Describe these imperfections. What was done to eliminate this effort loss?

i. Were missile parts packaged for shipment in Shop No. 23? Describe this procedure, the container, address markings. If damage was used, describe it.

j. Were some missile parts packaged in light weight containers obviously designed to conserve weight for air freight forwarding?

k. Upon what authority does source believe missile parts produced in Shop No. 23 were shipped to Plant No. 456 in Khimki?

l. Were Khimki deliveries made by rail, truck or barge? How often were deliveries made and how many units made in a given shipment?

m. What was the net weight of each type missile article produced? What was the gross weight per article when packaged for shipment? What were packaged items' dimensions?

n. While employed at Plant No. 45 in Moscow, did source make any trips to any other Soviet aircraft engine or airframe plant(s)? If so, which plant(s) were visited and when? What was the paramount reason for each visit?

o. Does source have any information on any other Soviet plant in the Moscow area which is associated with missile production or missile sub-assembly production? The same for any Soviet plant outside the Moscow area, excluding Plant No. 456 in Khimki.

p. Has source any knowledge of other [redacted] who could add to source's information on any questions associated with missile activity in the USSR? If so, whom?

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q. In previous interview, source maintained that the offices of the main engineer were on the second floor directly above the shop area (Shop No. 23). What is the name of this engineer and what background information does source have on this individual?

r. Source appears to be quite certain that the building in which Shop No. 23 was housed consisted of two stories. Source is requested to elaborate upon this and to give further evidence to support this opinion.

s. Has source any information regarding a basement below Shop No. 23? If so, give details. Has source any knowledge of basement areas located in any other part of Plant No. 45?

t. The roof design of the shop type building housing Shop No. 23 is known to have Monitor Skylights in multiple bays. Source is requested to estimate the overall height of the building and the ceiling height of Shop No. 23. Did Shop No. 23 have Monitor type skylighting? (If answer is affirmative, how does source align this with his answer to "q" above.)

u. Source is requested to prepare a layout sketch of Plant No. 45 and indicate in which buildings the following type manufacturing was accomplished: (a) Agriculture machinery, (b) aero-engines, and (c) missiles. Which parts of individual buildings contained administration areas?

3. On 27 June 1956, Plant No. 45 was visited by the Chief of Staff, USAF, and a select party of Air Force officers. The trip through the plant lasted for about two hours during which time the building housing Shops Nos. 12, 13 and 23 was visited. Advance knowledge of the visit was known by the plant workers. The following questions are tailored to the above mentioned visit and source SS-3229 who was employed as a section chief in Shop No. 23 at the time.

a. In a previous interview, source stated that after 1949 the letters and number "BK-1" (VK-1) were stamped on each of the compressors manufactured in Shop No. 23. At the time of the US delegation's visit in 1956 were all compressors still being stamped in the above manner? If not, what were the letters and numbers stamped on centrifugal flow engine parts? At the time of his repatriation in January 1957 were "BK-1" stampings still being used on compressors? If so, what was the proportion of "BK-1" stampings to other noted stampings? Was "BK-1" production completely phased out of Shop No. 23 in January 1957?

b. At the time of the US delegation's visit to Shop No. 23, how much effort (direct man-hours/percent of labor force per shift)

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was being devoted to missiles parts manufacturing? to aircraft engine parts? for each shift.

c. At the time of the visit, what was the percent of operating capacity of Shop No. 23, of the Plant, as compared with capacity during the Korean War (June 1950-August 1953)?

d. Between the time of the US delegation's visit and source's repatriation was there any indication of retooling in Shop No. 23 normally associated in the aircraft engine industry with conversion to production of a new engine type? to greater effort on the production of missile parts?

e. How much advance notice did source and Shop No. 23 personnel have that the Western observers were to visit their plant? that the visitors were to tour Shop No. 23?

f. What preparations were made in Shop No. 23 to receive the visitors? Were special efforts made to make the shop presentable? Were supervisors and/or workmen briefed on what their conduct would be during the inspection tour? If special effort was made on any or all of the above, give details.

g. During the inspection tour was Shop No. 23 operating in a normal manner, manned with the usual number of shift workers, and with each workman doing his prescribed job? Explain any divergence from the norm to include substitution of skilled machine operators for semi-skilled workmen, or converse procedure.

h. Was Shop No. 23 producing its usual engine component parts during the time when the Western delegation was present? If not, give detailed explanation of what was substituted or removed.

i. During the time of the tour was Shop No. 23 actively producing the missile parts previously delineated by source? If not, give detailed explanation of this stoppage and what was substituted. If production was temporarily stopped, how soon after the visit was production or fabrication resumed? Give pertinent details.

j. Were any articles produced from alloys other than aluminum, steel and magnesium removed from Shop No. 23 prior to the arrival of the visitors? Describe and make drawings of them. Describe the titanium articles in detail.

k. Source is requested to give as detailed a report as possible of his impression and hearsay impressions of others regarding the

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post-visit account of the Western observers tour of Shop No. 23 and of Plant No. 45. In general, the report should cover the following:

- (1) Did the visitors appear impressed by the tour?
 - (2) What appeared to impress or interest the visitors most? What seemed to impress them the least?
 - (3) Was source, and others, impressed by the Western visitors? What was the consensus of favorable impressions? of unfavorable impressions?
1. How soon after the departure of the Western observers was Shop No. 23 back in normal operation? Were workers required to make up production loss due to the interruption of work routine? Which was resumed first, missile or aircraft engine parts?

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